**Get Boostered**

 Hello, it’s Shelby with Antrim Veterinary Hospital. You may wonder why it is so important for your pet to receive vaccines and why they need those vaccines boostered. Vaccines work by stimulating the immune system to produce antibodies to a particular virus, bacteria, or other infectious organism (antigen). If the body is exposed to these antigens in the future the antibodies it made will either prevent infection or decrease the severity of the disease and allow for a quicker recovery.

 Some vaccines require a booster 3-4 weeks after the initial vaccine is given. Consider the first vaccine a “priming” dose. The second vaccine is needed to boost the response to achieve a higher, longer lasting level of immunity. Immunity does declines over time, therefore, to maintain the best immunity revaccination is needed. This will vary based on the vaccine. It is not typically recommended to vaccinate your pet if it is ill. If their immune system is already trying to fight an illness or infection they may not be able to mount an adequate response to the vaccine.

 Almost all vaccines are given by injection although some are given orally or nasally. This is necessary to stimulate the immune system. Within a few hours of vaccination, the early stages of response begin, however be aware that pets are not immediately protected. With injectable vaccines it takes 10-14 days after vaccination for a decent level of immunity to develop. Intranasal or oral vaccines often afford protection in 2-3 days. There are very few risks associated with vaccines. Your pet may have a temporary loss of appetite or some soreness or stiffness but these signs typically resolve within hours. These risks are very minimal compared to the risks presented by the infectious diseases the vaccines protect against.

 Puppies and kittens do need more boosters than an adult animal. This is because when a puppy or kitten is born the mother passes maternal antibodies to their newborn in colostrum (the first milk). This means that the protection the mother had against diseases and viruses the newborn now has. The amount of immunity passed on to the newborn varies based on the quality and amount of colostrum ingested as well as how soon after birth the newborn nurses. Puppies and kittens absorb the maximum amount of colostrum by 8 hours after birth. At that time the intestinal tract begins to change and by 24 hours after birth they can no longer absorb the maternal antibodies. As long as maternal antibodies are high, the newborn can not respond to vaccines. However, if the maternal antibody level drops before the animal can mount their own response to vaccines they will be vulnerable. Because it is difficult to tell when the maternal antibodies have dropped, puppies and kittens are vaccinated every few weeks to try to cover them while they mount a response. Most maternal antibodies have dropped by 15-16 weeks of age. Occasionally certain circumstances will dictate continuing a puppy series beyond 16 weeks.

 Our pets are exposed to bacteria and viruses every day. Although we don’t have vaccines for all of these organisms we can at least protect them from quite a few of the deadliest. The benefits of vaccinating your pet greatly outweigh any risks associated, however not every pet needs every vaccine. Here at Antrim we tailor the vaccines to the lifestyle of the animal. For more information on the vaccinations your pet should receive please give us a call at 410 - 751 - 0091.